

Factors influencing future oil and gas prospects in the Arctic

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1. Project/publication	Harsem, Ø., A. Eide and K. Heen: Factors influencing future oil and gas prospects in the Arctic, <i>Energy Policy</i> (2011), doi:10.1016/j.enpol.2011.09.058
2. Initiator	Research work by the authors. Funding was received from the European Union's Seventh Framework Programme under grant agreement number 226248 – Arctic Tipping Point (ATP).
3. Objective	This paper reviews the on-going debate on future oil and gas production in the Arctic by providing an analysis of the anticipated development. It studies oil and gas development in the Arctic by analysing the combined effect of environmental and geological variables (below ground) and political and economic variables (above ground).
4. Geographical delimitation	The paper covers oil and gas development in the circumpolar Arctic.
5. Time horizon	This paper discusses factors that will influence oil and gas development in the coming decades.
6. Thematic focus	This study is comprehensive as it covers a broad range of factors that influence oil and gas activity in the Arctic. It covers climate changes, sea ice reduction, extreme weather, market related factors, and finally key political issues.
7. Images of the future	<ul style="list-style-type: none"> - Climate change will bring further opportunities and challenges: - Ice-free summers, which are predicted by 2040, will mean longer drilling seasons - An increase in the frequency of polar storms and hurricanes could create more unpredictable conditions - National governments must also consider strong environmental concerns over disruption to pristine Arctic ecosystems and the potential impact of oil spills.
8. Key driving forces	<ul style="list-style-type: none"> • Climate change • Oil Prices • Government regulations • The state of the global economy
9. Uncertainties/wildcards	As this study has shown that Arctic oil and gas production is dependent on a complex set of variables, predicting the rate and speed of further oil and gas development in the Arctic is very difficult. Even though the obstacles for the hydrocarbon producing industry are formidable in the Arctic, there are strong signs that new fields will be developed in the near future. However, a slowdown in the world economy would reduce the need for increased production in the Arctic.
10. Accomplishment and collaboration	No formal cooperation with other authors/institutions.
11. Method	The paper reviews existing literature from a variety of different fields.
12. Sources of information	Existing published literature found in academic journals and government and industry reports.
13. Strengths	This work has reviewed an extensive part of the literature, and combines findings

	from a variety of different scientific fields, which provides a comprehensive picture of the driving forces behind oil and gas development in the Arctic.
14. Weaknesses	As the paper covers a broad range of contributing factors that influence oil and gas activity in the Arctic, it is difficult to pinpoint the most important driving forces. Also, since the paper present findings from a variety of different scientific fields, it may lack a thorough analysis of all the presented driving forces.
15. Attention and significance	This study has been published in the journal: Energy Policy, and was also presented at the Arctic Frontiers conference in 2011.
16. Relevance for the Fram Centre	Not especially relevant.